Bank Regulatory Capital: Why It Didn’t Save Silicon Valley Bank or Credit Suisse, and What Happens Next

svb
Silicon Valley Bank

Is the Banking System on the Brink of Failure?

The past month has been **quite eventful** with high-profile bank failures, like **Silicon Valley Bank (SVB)** and **Signature Bank**, and the end of **Credit Suisse**…

But **why** did all of this happen?

Is the Banking System on the Brink of Failure?

More specifically, why didn't the **rules and regulations** created after the 2008 Great Financial Crisis (GFC) stop any of this?

And is the entire financial system about to collapse? Can we **stop** it? What to do?

For the files and resources in this tutorial, please go to:

https://breakingintowallstreet.com/kb/bank-modeling/bank-regulatory-capital/

(Google “biws bank regulatory capital”)

SHORT ANSWER: Rules * People = Dumb^2

- **Issue #1:** Post-2008 rules were designed for *the last crisis*, which differed from the current one! (Asset quality and leverage vs. interest-rate risk and “confidence”)

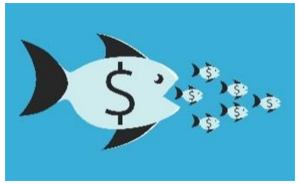
- **Issue #2:** Regulatory capital requirements measure risk; they don’t “prevent” banks from failing

- **Issue #3:** Banks *are* a bit of a “black box” (credit: Ackman)

- **Issue #4:** Regulators and bank management were incompetent, conflicted, and asleep at the wheel

SHORT ANSWER: Rules * People = Dumb^2

- **Financial System:** Not going to "collapse," but we *will* see more sales, failures, and last-minute acquisitions



- **Problem:** All these "crises" and the responses from regulators are making the industry even more concentrated, which will make it even riskier in the future

- **Truth:** There is no way to "prevent" bank failures without total government ownership…

- **But:** If the industry were *less concentrated*, with no "Too Big to Fail" banks, it would better withstand these failures

Plan for This Tutorial

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What is Bank “Regulatory Capital”?

- **IDEA:** Unlike most normal companies, banks **expect** that a certain percentage of their Assets (Loans) will “go bad”

- **Expected Losses:** These go in a contra-asset called the **Allowance for Loan Losses** (ALL) on the Balance Sheet, and they’re netted against **Gross Loans** to calculate **Net Loans**

- **Changes:** The ALL should reflect the *total* expected losses over the lives of all the loans, but the bank can adjust it up and down via the **Provision for Credit Losses** on the Income Statement (non-cash add-back on the CFS)

What is Bank "Regulatory Capital"?

- **Unexpected Losses:** But the bank might be wrong! What if something *unexpected* happens and it has to write off a loan that seemed fine? Or what if its *expected losses* increase?

- **PROBLEM:** If something on the Assets side of the Balance Sheet decreases, something on the Liabilities & Equity side must also decrease to match the change

- **Liabilities & Equity for a Bank:** Deposits, Debt, and Equity

- **GOAL:** Avoid making the depositors lose money! The equity and debt investors **must** absorb the losses first

What is Bank "Regulatory Capital"?

- **So:** All banks must maintain a certain **Common Shareholders' Equity (CSE)** in relation to their **Risk-Weighted Assets (RWAs)** at all times

- **IDEA:** If a bank *expects or incurs* a loss above its ALL, it will appear on the Income Statement, reducing Net Income

- **Flow:** That lower Net Income reduces CSE on the Balance Sheet, matching the reduction in Net Loans on the other side

- **So:** If a bank has enough CSE to withstand moderate losses, it should be fine… in theory

What is Bank "Regulatory Capital"?

- **Common Equity Tier 1 (CET 1):** CSE – Goodwill & Other Intangibles +/- Other Adjustments
- **Tier 1 Capital**: CET 1 + Preferred Stock

- **Requirements:** CET 1 / Risk-Weighted Assets (RWAs) >= 4.5% and Tier 1 Capital / RWA >= 8.0%; the "Capital Conservation Buffer" adds 2.5% to each, and there are other surcharges

- **Failure to Comply:** Regulators may limit the bank's dividends, acquisitions, share buy-backs, and executive compensation; the bank's insurance premiums might also go up (and government takeover if things get bad enough)

What is Bank "Regulatory Capital"?

- **Other Ratios:** The **Liquidity Coverage Ratio (LCR)** measures the bank's **liquid assets** relative to **possible net cash outflows over a stressed 30-day period**

- **AKA:** If depositors panic and withdraw lots of money, does the bank have enough cash to handle it?

- **Net Stable Funding Ratio (NSFR):** Does the bank have enough "stable funding" (stickier deposits, LT debt, equity, etc.) to pay for its "required funding" (percentages of various assets) over a stressed 1-year period?

Why Silicon Valley Bank Failed

- **Short Answer:** Incompetent management, 0 risk management, failed regulators, and terrible deposit base

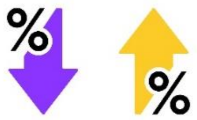
- **SVB:** Had a huge influx of deposits over the past few years due to startups flush with VC funding

- **But:** Couldn't issue enough loans, so they bought "safe" government bonds and mortgage-backed securities

- **But:** Remember that "Risk-Free" just refers to default risk! These securities still had *interest-rate risk*!

Why Silicon Valley Bank Failed

- **Interest Rates:** As they rose, the company kept recording unrealized losses on many of its Held to Maturity (HTM) securities…



- **But:** These are not shown on the Balance Sheet at all, so its regulatory capital, such as the CET 1 Ratio, "seemed" fine

- **Reality:** If you had adjusted for theses unrealized losses, the bank would have been insolvent

- **And:** It didn't even have to disclose its LCR or NSFR

Why Silicon Valley Bank Failed

- **So:** When everyone suddenly realized the bank was insolvent, startups all tried to withdraw their cash at the same time…

- **Result:** Bank run! The bank couldn't sell everything quickly enough to cover all the cash outflows, so the government had to step in

- **SOLUTIONS:** Hedge interest-rate risk with swaps; don't buy all long-term bonds; don't make 100% of your customers startups/tech companies; make sure regulators actually do their jobs…

Why Credit Suisse Failed

- **History:** Massive risk-management failures over the past 10-15 years (Archegos), huge losses in 2022 (CHF 7.3 billion!), and wide range of scandals and mishaps

- **Regulatory Capital Ratios:** Despite that, all the standard ratios looked "fine," though they were declining

- **BUT:** The company's Cash and Deposit situation was very, very bad, with huge declines in 2022; not directly captured by these ratios!

Why Credit Suisse Failed

- **So:** Right after SVB and Signature failed, the "Eye of Sauron" (investors) turned its eye to the next weakest link in the bank chain: **Credit Suisse**

- **And:** Once again, depositors rushed to withdraw their funds, and the bank wasn't going to last more than 1-2 weeks

- **Main Lesson:** Once people lose confidence in a bank, no "rule" can stop it from failing – even if it keeps 100% of its deposits in cash and never even issues loans!

What Can We Do, and What Happens Next?

- **Proposals:** Insure *all* deposits; impose stricter requirements/regulations; force regulators to do their jobs; create a “free” national bank; crypto!!!!!!!!!!

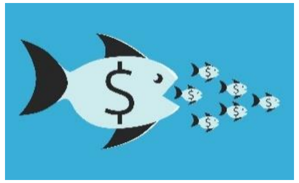
- **Truth:** All of these, except for “crypto,” could be starting points for a discussion…

- **BUT:** There is no way to “prevent” bank failures no matter the rules because customers could always withdraw 100% of their deposits (even if they’re insured!)

What Can We Do, and What Happens Next?

- **Real Solution:** No bank should be "too big to fail" – **the large banks all need to be broken up**, and we need *a lot more competition* in the industry

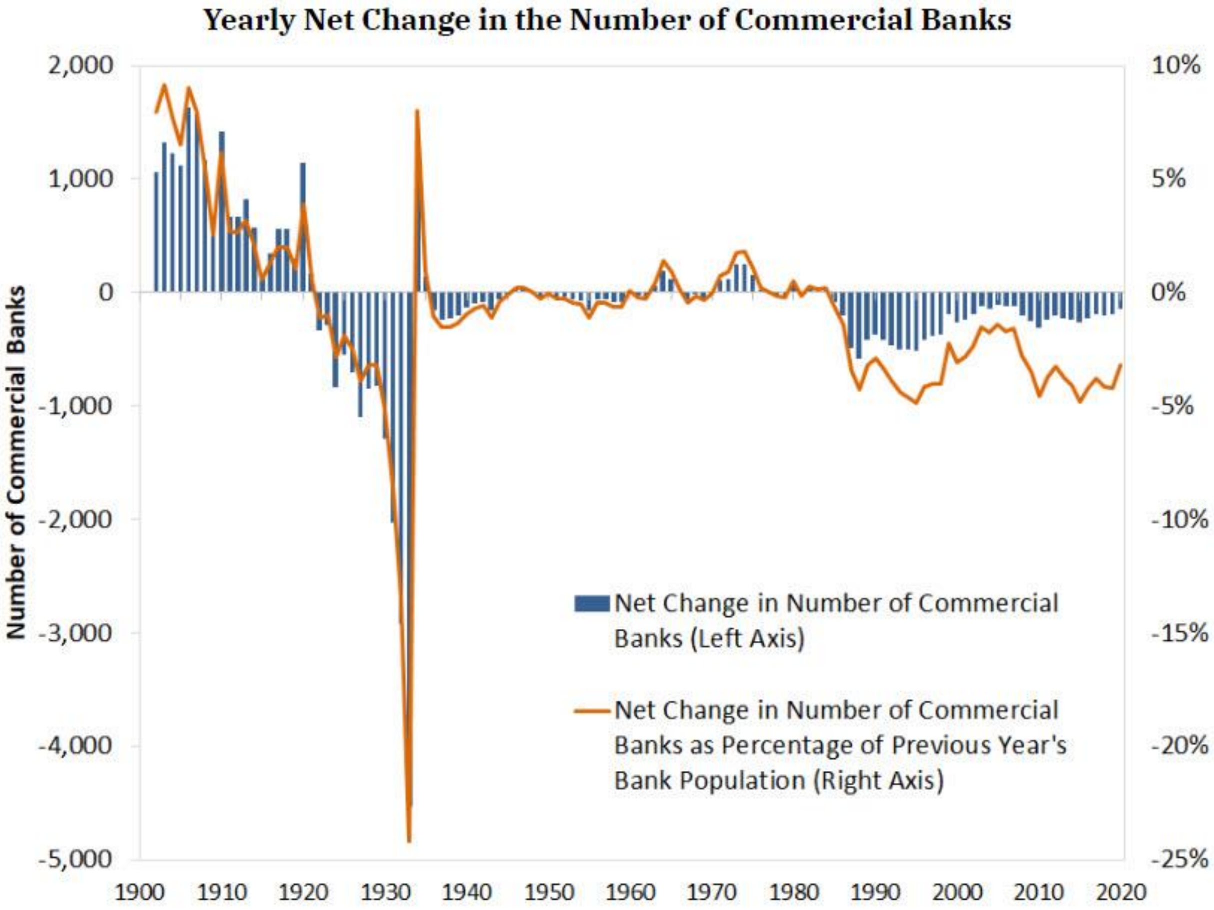
- **Implementation:** Reduce the max % of deposits nationwide each bank could have (set to ~10% currently)



- **Goals:** If a bank fails, allow a healthier bank to take over *without* much additional concentration; make sure the uninsured depositors get their money in a reasonable amount of time

What Can We Do, and What Happens Next?

- **Wishful Thinking:** Just look at the overall trends in bank consolidation in the U.S. over the past 100 years…



Recap and Summary

- **Part 1:** Bank Regulatory Capital Ratios

- **Part 2:** Why the Rules "Didn't Work" for SVB

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